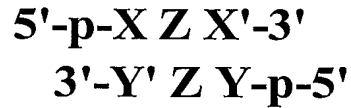


CLAIMS

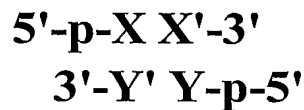
What we claim is:

1. A multifunctional siNA molecule of Formula I:



wherein each 5'-p-XZX'-3' and 5'-p-YZY'-3' independently comprise an oligonucleotide of length between about 24 and about 38 nucleotides, XZ comprises a nucleic acid sequence that is complementary to a first target nucleic acid sequence, YZ comprises an oligonucleotide comprising nucleic acid sequence that is complementary to a second target nucleic acid sequence, Z comprises nucleotide sequence of length about 1 to about 24 nucleotides that is complementary between regions XZ and YZ, X comprises nucleotide sequence of length about 1 to about 21 nucleotides that is complementary to nucleotide sequence present in region Y', Y comprises nucleotide sequence of length about 1 to about 21 nucleotides that is complementary to nucleotide sequence present in region X', p comprises a terminal phosphate group that can independently be present or absent, and wherein each said XZ and said YZ are independently of length sufficient to stably interact with said first and said second target nucleic acid sequence, respectively, or a portion thereof.

2. A multifunctional siNA molecule of Formula II:



wherein each 5'-p-XX'-3' and 5'-p-YY'-3' independently comprise an oligonucleotide of length between about 24 and about 38 nucleotides, X comprises a nucleic acid sequence that is complementary to a first target nucleic acid sequence, Y comprises an oligonucleotide comprising nucleic acid sequence that is complementary to a second target nucleic acid sequence, said X further comprises nucleotide sequence of length about 1 to about 21 nucleotides that is complementary to nucleotide sequence present in region Y', said Y further comprises nucleotide sequence of length about 1 to about 21 nucleotides that is complementary to nucleotide sequence present in region X', p comprises a

terminal phosphate group that can independently be present or absent, and wherein each said X and said Y are independently of length sufficient to stably interact with said first and said second target nucleic acid sequence, respectively, or a portion thereof.

3. The siNA molecule of claim 1, wherein said siNA comprises a 3'-terminal cap moiety.
4. The siNA molecule of claim 3, wherein said terminal cap moiety is an inverted deoxyabasic moiety.
5. The siNA molecule of claim 3, wherein said terminal cap moiety is an inverted deoxynucleotide moiety.
6. The siNA molecule of claim 3, wherein said terminal cap moiety is a dinucleotide moiety.
7. The siNA molecule of claim 6, wherein said dinucleotide is dithymidine (TT).
8. The siNA molecule of claim 2, wherein said siNA comprises a 3'-terminal cap moiety.
9. The siNA molecule of claim 8, wherein said terminal cap moiety is an inverted deoxyabasic moiety.
10. The siNA molecule of claim 8, wherein said terminal cap moiety is an inverted deoxynucleotide moiety.
11. The siNA molecule of claim 8, wherein said terminal cap moiety is a dinucleotide moiety.
12. The siNA molecule of claim 11, wherein said dinucleotide is dithymidine (TT).
13. The siNA molecule of claim 1, wherein said siNA molecule comprises no ribonucleotides.
14. The siNA molecule of claim 1, wherein said siNA molecule comprises ribonucleotides.
15. The siNA molecule of claim 2, wherein said siNA molecule comprises no ribonucleotides.

16. The siNA molecule of claim 2, wherein said siNA molecule comprises ribonucleotides.
17. The siNA molecule of claim 1, wherein any purine nucleotide in said siNA is a 2'-O-methyl pyrimidine nucleotide.
18. The siNA molecule of claim 1, wherein any purine nucleotide in said siNA is a 2'-deoxy purine nucleotide.
19. The siNA molecule of claim 1, wherein any pyrimidine nucleotide in said siNA is a 2'-deoxy-2'-fluoro pyrimidine nucleotide.
20. The siNA molecule of claim 1, wherein said siNA molecule comprises 3'-nucleotide overhangs.
21. The siNA molecule of claim 24, wherein said 3'-overhangs comprise about 1 to about 4 nucleotides.
22. The siNA molecule of claim 25, wherein said nucleotides comprise deoxynucleotides.
23. The siNA molecule of claim 26, wherein said deoxynucleotides are thymidine nucleotides.
24. The siNA molecule of claim 2, wherein any purine nucleotide in said siNA is a 2'-O-methyl pyrimidine nucleotide.
25. The siNA molecule of claim 2, wherein any purine nucleotide in said siNA is a 2'-deoxy purine nucleotide.
26. The siNA molecule of claim 2, wherein any pyrimidine nucleotide in said siNA is a 2'-deoxy-2'-fluoro pyrimidine nucleotide.
27. The siNA molecule of claim 2, wherein said siNA molecule comprises 3'-nucleotide overhangs.
28. The siNA molecule of claim 27, wherein said 3'-overhangs comprise about 1 to about 4 nucleotides.
29. The siNA molecule of claim 28, wherein said nucleotides comprise deoxynucleotides.

30. The siNA molecule of claim 29, wherein said deoxynucleotides are thymidine nucleotides.
31. A pharmaceutical composition comprising the siNA molecule of claim 1 in an acceptable carrier or diluent.
32. A pharmaceutical composition comprising the siNA molecule of claim 2 in an acceptable carrier or diluent.